

CLAIMS

What is claimed is:

1. A magnetic head suspension assembly for transducing data that is recorded and read out from a surface of a rotating magnetic disk drive comprising:

an integral piece of a specified thickness including a load beam section and a flexure section, said load beam section having a tongue extending into said flexure section;

a cutout in said flexure section delineating said load beam tongue;

narrow legs substantially thinner than said specified thickness formed along the sides of said cutout and spaced from said tongue,

wherein the load force is transferred substantially through said tongue and is independent of gimbaling and lateral positioning provided by said narrow legs.

2. An assembly as in Claim 1, wherein said ~~including a head slider~~ ^{has} a top non-air bearing surface attached to said flexure section.

3. An assembly as in Claim 2, including means formed with said ~~flexure section~~ ^{lateral ear} for supporting said attached head slider.

4. An assembly as in Claim 3, wherein said supporting means comprises ~~outriggers or a split tongue formed at the outer edges of said flexure section.~~

5. An assembly as in Claim 3, wherein said supporting means comprises ~~a lateral part~~ ^{said ear} that connects said narrow legs.

6. An assembly as in Claim 2, wherein said slider is about 0.0110 inch high, 0.0400 inch long and 0.0200-0.0260 inch wide.

top non-air bearing surface of said

1 7. An assembly as in Claim 2, wherein said slider is formed
2 with a ~~platform and~~ *platform and* ~~step~~ *step* adjacent to a platform.

3
4 8. An assembly as in Claim 7, wherein said platform of said
5 slider is about 0.0336 inch long and said step is about 0.0015
6 inch high.

7
8 9. An assembly as in Claim 2, including a load dimple formed in
9 said tongue.

10
11 10. An assembly as in Claim 9, wherein said load dimple is
12 hemispherical in shape and faces down into contact with said top
13 surface of said slider.

14
15 11. An assembly as in Claim 1, wherein said ~~integral~~ *single planar* piece
16 including said ~~split~~ *split* tongue and ~~lateral part~~ *lateral part* is about 0.0012 to
17 0.0015 inch thick and said narrow legs are about 0.0010 inch
18 thick.

19
20 12. An assembly as in Claim 1, wherein said load beam section
21 is shaped as a truncated triangle.

22
23 13. An assembly as in Claim 1, including a mount section at the
24 rear end of said load beam section for enabling mounting said
25 suspension to an actuator arm; and
26 a leaf spring section between said rear mount section and
27 said load beam section for providing flexibility to said
28 suspension.

29
30 14. An assembly as in Claim 13, including a swage plate joined
31 to said mount section for providing rigidity to said rear end of
32 said suspension assembly.

33
34 15. An assembly as in Claim 13, including front flanges formed
35 along the edges of said load beam section and rear flanges formed

1 along the edges of said rear mount section with a hiatus between
2 said front and rear flanges.

3
4 16. An assembly as in Claim 15, wherein said front flanges are
5 formed with shallow U-shaped channels, and electrical wiring
6 without tubing is positioned within said channels.

7
8 C 17. An assembly as in Claim ¹³1, including a cutout in said leaf
9 spring section for providing flexibility to said suspension.

10
11 ¹²³ 18. An assembly as in Claim ^{at the rear end of}1, further including an apertured
12 extension formed ^{with} said suspension assembly for enabling
13 attachment to an actuator of a disk drive without a separate head
14 arm to enable pivoting of said suspension assembly.

15
16 ¹²³ 19. An assembly as in Claim ¹1, including a damping material
17 seated on said load beam.

18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35

Claims 20 - 22